

In the semiconductor device shown in Figure 5, it is impossible for the capacitor 9a to use as an opposing electrode the inner wall [and the bottom portion] of the cylindrical portion 6d and the bottom portion of the cylindrical storage node 6b. However, assuming that the cylindrical storage node 6b is a cylindrical form having a radius (x) of 0.40  $\mu\text{m}$  and the surface area of the outer wall is increased 2.5 times by the surface roughening treatment, the surface area which can be used for the storage node can be increased 1.2 times as large as a case without conducting the surface roughening treatment to the outer wall.

Please amend the paragraph beginning at page 21, line 10 as follows:

Since the core 11a is left in this embodiment, the inner wall [and the bottom portion] of the cylindrical portion 6d and the bottom portion of the storage node 6b can not be used as an opposing electrode. However, the outer wall of the cylindrical portion 6d is roughened, and accordingly, the surface area of the outer surface as an electrode can be increased as the whole in the cylindrical storage node 6b.

#### IN THE CLAIMS:

Please cancel claims 5 and 11, and amend claims 6-8, 10 and 12-14 as follows:

6. (Amended) A method for producing a semiconductor device [according to Claim 5, wherein] having a cylindrical storage node comprising a bottom portion and a cylindrical portion which surrounds an outer circumference of said bottom portion and extends upward, which comprises the steps of: